

REMARKS

Claims 18-33 were previously pending. By virtue of this amendment, claims 18, 25-27, and 29-31 have been amended, claim 24 has been canceled, and new claims 34-40 have been added. Accordingly, claims 18-23 and 25-40 are currently under consideration.

Claim 18 has been amended to claim: A carrier structure for a reflector element, for use in a solar energy reflector system, and which comprises: a reflector element; a platform which is arranged to carry the reflector element and which is formed with stiffening elements; a frame structure supporting the platform, wherein the frame structure comprises a space frame; at least one curved transverse frame member; and a mounting arrangement supporting the frame structure in a manner that accommodates turning of the carrier structure about an axis of rotation that lies substantially coincident with a longitudinal axis of the reflector element when mounted to the platform, wherein the platform is secured to the at least one curved transverse frame member in a manner such that the curvature of the at least one curved transverse frame member is imparted to the platform, and wherein the reflector element is secured to the platform in a manner such that the curvature of the platform is imparted to the reflector element. Claim 24 has been canceled as redundant in view of the amendments to claim 18. Claims 25-27 have been amended in view of the amendments to claim 18. Claims 29 and 31 are amended to replace "mounting means" with "mounting arrangement." Claim 30 is amended in view of the amendments to claim 18, and to provide more appropriate antecedent basis.

Support for the amendments and new claims may be found throughout the specification and claims as originally filed, for example, *inter alia*, for claim 18 (Figure 1, page 3 line 35 – page 4 line 1, page 5 lines 10-29 and 34), claims 29 and 31 (page 5 line 34), claims 34-36 (page 5 lines 22-29 and Figure 1), claim 37 (page 6 lines 4-7 and Figure 4), claim 38 and 39 (page 7 lines 1-6), and claim 40 (original claims 18 and 28-31). No new matter is believed to be added.

With respect to all amendments and canceled claims, Applicant has not dedicated or abandoned any unclaimed subject matter and, moreover, have not acquiesced to any rejections

and/or objections made by the Office. Applicant expressly reserves the right to pursue prosecution of any presently excluded claim embodiments in future continuations, continuation-in-part, and/or divisional applications.

Applicant thanks the Examiner for avoiding overburdening the Applicant with redundant rejections.

Double Patenting

Claims 18-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being allegedly unpatentable over claims 16-30 of co-pending U.S. Appl. No. 10/563,170.

Applicant notes the provisional nature of the rejection, and respectfully requests deferral of this rejection until a Notice of Allowance is received in co-pending U.S. Appl. No. 10/563,170, and assessment of the applicability of the rejection at that time.

Rejection Under 35 USC § 102

Claims 18-22, 24, and 27-29 are rejected under 35 USC § 102(b) as allegedly anticipated by Sick (4,820,033). Applicant respectfully traverses the rejection.

As an initial matter, claim 24 has been canceled without prejudice.

Sick relates to a solar mirror apparatus having an elongate support frame on which resiliently flexible sheet metal mirrors are secured in a parabolically curved arrangement, with an elongate solar radiation receiver being mounted at the focal line of the sheet metal mirrors. Sick does not teach or suggest a carrier structure comprising a space frame, as claimed in amended claim 18. A space frame structure advantageously provides the carrier structure with a high degree of torsional strength and stiffness for comparatively less material and wind resistance. Solar energy reflector systems, to be efficient, require the ability to accurately angle the reflector element relative

to a receiver element, particularly when the receiver element is remote from the reflector element. Small changes in the position and angle of the carrier structure, or deformation e.g. due to wind gusts, may result in relatively large changes in reflection angle from the reflector element, greatly reducing the efficiency of the solar energy reflector system. Further, the high torsional strength and stiffness of the carrier structure of the instant invention results in a carrier structure that is easier to drive. Sick also does not teach or suggest the combination of: at least one curved transverse frame member, wherein the platform is secured to the at least one curved transverse frame member in a manner such that the curvature of the at least one curved transverse frame member is imparted to the platform, and wherein the reflector element is secured to the platform in a manner such that the curvature of the platform is imparted to the reflector element, nor does Sick teach or suggest these elements in combination with a space frame.

Claims 19-22, and 27-29 depend from claim 18 and therefore also are not anticipated by Sick. Further, Sick does not teach a carrier structure wherein the platform comprises a corrugated metal panel, as claimed in claim 19, nor does Sick teach a carrier structure wherein the platform comprises a panel-like platform, wherein the stiffening elements are formed as flutes in the platform, as claimed in claim 20.

Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 USC § 102(b).

Rejections Under 35 USC § 103

A. Claims 32 and 33 are rejected under 35 USC § 103(a) as allegedly unpatentable over Sick (4,820,033) in view of Butler (4,559,926). Applicant respectfully traverses the rejection.

Alone or in combination, Sick and Butler do not teach or suggest the claimed invention. As discussed above, Sick does not teach or suggest all elements of claim 18. Butler does not remedy the deficiencies of Sick. Butler relates to a parabolic-trough solar collector system, with each collector driven to track the sun using a ring driven in centerless fashion. Butler does not teach or suggest a space frame, nor does Butler teach or suggest the combination of: at least one curved

transverse frame member, wherein the platform is secured to the at least one curved transverse frame member in a manner such that the curvature of the at least one curved transverse frame member is imparted to the platform, and wherein the reflector element is secured to the platform in a manner such that the curvature of the platform is imparted to the reflector element, nor does Butler teach or suggest these elements in combination with a space frame. Claims 32 and 33 are dependent from claim 18, and thus are not unpatentable in view of Sick and Butler, alone or in combination.

Further, neither Sick nor Butler teach or suggest a unidirectional drive, as claimed in claim 32.

B. Claims 23, 25, and 26 are rejected under 35 USC § 103(a) as allegedly unpatentable over Sick (4,820,033). Applicant respectfully traverses the rejection.

As discussed above, Sick does not teach or suggest all elements of claim 18. Claims 23, 25, and 26 depend from claim 18, and thus are not unpatentable over Sick.

Further, Sick is directed to a parabolic trough solar collector system, wherein the receiver element is part of the carrier structure comprising the reflector element. In contrast, the invention as claimed in claim 23 is directed to a carrier structure for use in a linear Fresnel solar reflector system, in which the receiver element is remote from the carrier structure comprising the reflector element. It would not be obvious to one of ordinary skill in the art to combine a platform for supporting a reflector element having a radius of curvature within the range of 20 to 50 metres with features of the systems of Sick, since a reflector element having a radius of curvature within the range of 20 to 50 metres would not focus on the receiver element in a parabolic trough solar collector system.

C. Claims 30 and 31 are rejected under 35 USC § 103(a) as allegedly unpatentable over Sick (4,820,033) in view of Funger (6,543,441). Applicant respectfully traverses the rejection.

Alone or in combination, Sick and Funger do not teach or suggest the claimed invention. As discussed above, Sick does not teach or suggest all elements of claim 18. Funger does not

remedy the deficiencies of Sick. Funger relates to an apparatus for utilizing solar energy. Funger does not teach or suggest a space frame, nor does Funger teach or suggest the combination of: at least one curved transverse frame member, wherein the platform is secured to the at least one curved transverse frame member in a manner such that the curvature of the at least one curved transverse frame member is imparted to the platform, and wherein the reflector element is secured to the platform in a manner such that the curvature of the platform is imparted to the reflector element, nor does Funger teach or suggest these elements in combination with a space frame. Claims 30 and 31 are dependent from claim 18, and thus are not unpatentable in view of Sick and Funger, alone or in combination.

Accordingly, Applicant respectfully requests withdrawal of the rejections under 35 USC § 103(a).

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Garth Janke', is written over the printed name.

Garth Janke

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